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TITLE : PARTS PARTIALLY HAVING SUPERELASTICITY, AND ITS MANUFACTURING METHOD

ABSTRACT : PROBLEM TO BE SOLVED: To provide a method for manufacturing parts partially having superelasticity, as a typical example, the 'temple' part of spectacle frames by a simple process where a final annealing step is omitted, accordingly at a low cost.

SOLUTION: A material in which transformation temperature is regulated and hardness is controlled is prepared by providing an Ni-Ti-M (where M is Fe, V or Co) alloy which consists of 55.0 to 55.9 wt.% of (Ni+M) and the balance Ti and in which M content is properly selected. After this material is worked into a desired parts shape, annealing is applied to make shape memory characteristics disappear. Then cold working is applied only to a specific part (the temple part, in the case of the spectacle frames) and finally shape memory treatment is applied. By this method, a product in which a cold-worked part alone exhibits superelasticity and the other part can be subjected to plastic working can be obtained.